

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

November 2016

Volume 22 Issue 11



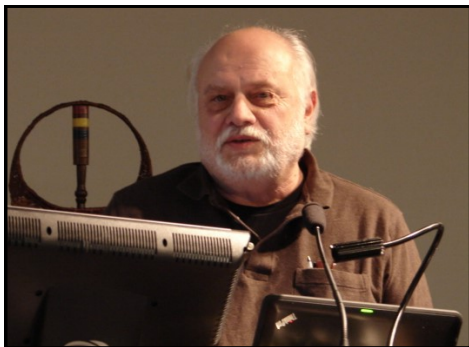
## MEETING/ ACTIVITY NOTES

Reported by  
Marv Beeferman

### The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 130 of your fellow NJARC members have already subscribed, saving the club a significant amount of money and your editor extra work. Interested? Send your e-mail address to [mbeeferman@verizon.net](mailto:mbeeferman@verizon.net). Be sure to include your full name.

Thanks to member Mike Molnar for his very interesting talk on the 1928 Austin Cooley's Rayfoto system. Mike accented his talk with an almost pristine, boxed collection of the parts that are assembled to build a system that was accessible to "the best radio experimenters of the day."



Mike Molnar

As Mike explained, at first, the Rayfoto system may seem to have been an early precursor to television. But far from creating a moving image, Cooley's Rayfoto machine offered something akin to a facsimile machine that received images that were broadcast during certain radio shows. Over 27 broadcasters experimented with this technology (including WOR) and demonstrated it to the public. However, it was ultimately deemed too slow as it took three minutes to record twenty



## MEETING NOTICE

The next NJARC meeting will take place on Friday, November 11th at 7:30 PM at InfoAge. Directions may be found at the club's website (<http://njarc.org>). Dust off those unusual pieces in your collection and show them the light of day during our "Radio Show & Tell" scheduled for this month. We're asking you not only to "show" them but "tell" us a short story behind your selections. Nothing new to talk about? How about participating in a demonstration and discussion of some "hints and kinks" that have simplified your repair and restoration experiences? In addition, we'll conduct an auction of a club buy-out of a North Bergen "Silent Key's" ham shack. More information on page 3.

square inches. Another shortcoming was the requirement to chemically develop photographic paper. The system basically worked as follows:

A rotating drum and photoelectric scanner is used to convert a photo into 800-cycle audio frequency currents which vary in amplitude with changes in the shading of the image. The output is received by the system owner's conventional broadcast receiver. Passing from the last stage of the receiver, the "picture signal" is amplified in an amplifier-oscillator unit which modulates the output of the oscillator in accordance with the modulation produced by the picture. The varying output of the oscillator is made to cause corresponding variations in the output of a corona coil. The corona discharge takes place at the point of a corona needle which feeds along a revolving drum mechanism connected to a standard phonograph mechanism. The needle traces over a photographic paper wrapped around the drum. At the end of each revolution of the drum, the received signals are diverted from the printer unit to a relay which is actuated when a synchronizing signal is received at the beginning of the revolution of the converter drum. This relay in turn operates a trip magnet which releases the recorder drum so it may start off at the same time as the converter drum. After the needle is fed along the entire length of the photographic paper, the paper is removed from the drum, developed, washed and fixed creating a picture 480 X 480 pixels.

Rather than presaging the advent of television, Cooley's Rayfoto invention merely helped advance ongoing efforts which ultimately took the form of the modern-day Fax machine, and even the

pre-magnetic recording tape era's "lacquer disc" recording devices of the 1930s.



"Radio experimenters" such as this young man was the basic audience that the Rayfoto system was primarily directed at.

**THE JERSEY BROADCASTER** is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated to preserving the history and enhancing the knowledge of radio and related disciplines. Dues are \$25 per year and meetings are held the second Friday of each month at InfoAge or Princeton University.

The Editor or NJARC is not liable for any other use of the contents of this publication.

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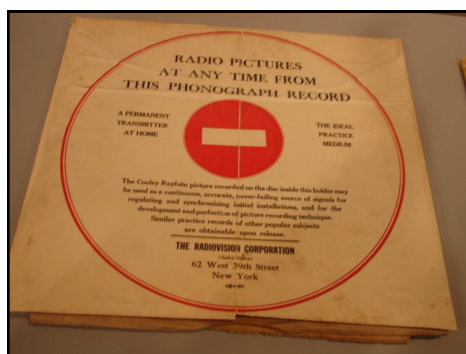
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The kit came with a record that was used to "calibrate" the system.

Final plans have been made for our Holiday Party on Saturday, December 10th. It will again be held at the West Lake Golf and Country Club in Jackson, NJ where member Bill Zukowski is a member and has graciously obtained a nice rental discount. Reservations are a must so please return the form on page 8 as soon as possible. We are strictly limited to 70 guests; once this limit is reached, no additional reservations will be accepted! Additional forms will be available at the November meeting, on the club's web page and the *Reflector*.

As most of you who had attended last year, the venue is a bit more fancy than previous years. Although casual dress is encouraged, president Richard Lee has requested "no bib overalls." The social hour will be prepared by the country club and served by the staff. Treats will include a cheese station, pigs in a blanket, rice balls, coconut chicken, tomato bruschetta, etc. You can "byo" wine or beer only but hard drinks are available at the bar at very reasonable prices. The buffet will also be prepared by the staff and will include such delights as a house salad, eggplant rollatini, flounder oreganata, chicken franchise, penne alla vodka, mixed veggies, roasted potatoes, ice cream cake and club cake.

While you're at it, start thinking about a gift for the party's Mystery Grab Bag. Game instructions will be posted on the club's web site and the *Reflector*.

The club's fall swapmeet is close at hand (see page 8). Ray Chase reports that an NJARC club member wishes to thin out his collection and will bring some of it to the swapmeet. This member has been restoring and repairing radios for some time and Ray says that his work "is the best I have ever seen." All radios are physically restored and in working condition. Photos can be seen at <http://www.ar88.net/cloud/>. Once at the site, enter the username "Ginospix" and the password "radar."

Radios included in the offering are a small RCA Canadian console made by GE, an RCA 56X5, a Philco 19 cathedral, a Motorola portable, a Hallicrafters TW-1000, a Philco 90 cathedral, a Philco 16B cathedral, a Philco 41-255, a Zenith 12S569, two RCA table sets, a Philco table set, a homemade set and a Philco 70 missing a speaker. Look for Gino Lombardo at the meet; he has a distinguished career behind the scenes in radio and audio.

Inspired by member Richard Phoenix's pirate radio presentation (see the October *Broadcaster*), Technical Coordinator Al Klase suggests an archive of Album Zone material for you "geezer rockers." Here you can pick and choose material, pause and play it and do it on your own schedule. The link is:

<https://www.mixcloud.com/thealbumzone/>

In the same vein, member Charles Blanding recommends the following links for "hours of entertainment in questionable test" for direct access for Album Zone Live:

[www.AlbumZone.co.uk](http://www.AlbumZone.co.uk)

[www.RTI.fm](http://www.RTI.fm)

[www.TuneIn.com](http://www.TuneIn.com) (inserting Album Zone)

Some of you NJARC "old-timers" might remember our past meetings at the David Sarnoff Library graciously hosted by member Dr. Alex Magoun who now works at the IEEE. To my surprise, the David Sarnoff Radio Club was originally founded at RCA's research labs and is now continuing in various meeting spots in Mercer County. The club is a general-interest amateur radio club serving the greater Princeton, NJ area. Membership is open to anyone with an interest in amateur radio and there are no dues. To become a member, you simply need to attend a club meeting and fill out a membership application. Monthly meetings are held from September through June, normally on the 3rd Tuesday at 7:30 PM. The meeting location is the American Red Cross at 707 Alexander Rd, Suite 101 in Princeton. For further information, go to [www.n2re.org](http://www.n2re.org).

Through a presentation at a recent NJARC meeting by Ron Hutchinson of the Vitaphone Project, we learned of the last major, commercially successful analog sound-on-disc film system. The film soundtrack was issued separately on phonograph records played on a turntable physically coupled to a projector motor while the film was being projected. Prior to this system, in 1913, Thomas Edison introduced the Kinetophone. The Kinetophone was a fairly complex mechanical means of creating talking pictures. Unlike



previous systems, in which actors would be required to lip synch to preexisting recordings on camera, the Kinetophone was one of the earliest film technologies to record sound at the same time as the image. The Library of Congress has reconstructed eight of these Kinetophones and preservationist George Willeman will present six of them in an illustrated lecture at the Museum of Modern Art on Saturday, November 19th at 2:30 PM. For all you NJARC early film buffs, Google MoMA for further information.



**Early Edison Kinetophone (1913)  
"Jack's Joke."**

Finally, I didn't quite finish restoring my Radiart Jr one-tube radio that was featured in last month's *Broadcaster*. I plan to finish it this month and get back to you on how it performed.

### Upcoming Events

November 5th: Fall swapmeet at Parsippany PAL.

December 10th: Holiday Party, West Lake Country Club, Jackson NJ (Make your reservations now!)

## **MUSEUM MUSINGS**

**By  
Ray Chase**



Some months ago, Brian Belanger who heads up the National Capitol Radio & Television Museum in Bowie, MD offered a couple of radios to the NJARC RTM (Radio Technology Museum). One is a small Silvertone console with a combination record player and wire recorder/player deck. The other is a non-descript Motorola console radio/record changer. I figured we could do something with the wire recorder and perhaps part out the other. Brian said he would deliver them on his next trip north and that occurred on Thursday, October 6th.

Brian is an old friend and we have exchanged museum visits a few times. Brian and his wife took a brief tour of the museum and he picked up a few ideas that he could implement in Bowie. Visits to other "like" museums are always fruitful and are highly recommended to search out new display ideas.

Brian indicated that like us, he is regularly confronted with offers for collections and residue from relatives of collectors who have passed on but can't be accommodated due to lack of storage space. Consequently, he will shortly be sending out a list of duplicate items and other surplus artifacts that are being offered to museums such as ours. These will be free but if we want something, we will have to pick it up or cover the shipping. Sounds like a very nice offer!



**Brian Belanger and his RTM donation.**

On October 12th, member Joe Benvenuto posted a note that he had come across a small, six tube, BC/SW wood table radio with a tag on the bottom that identified it as a Croydon. He could not find the name in Riders and said he would appreciate anyone who could track down the schematic.

After some thought, I was able to solve the mystery. I looked at a Croy-

don radio we have on display in the museum on loan by Phil Vourtsis and thought that it looked awfully familiar. Upon closer examination, I speculated that the listing on its data plate of "D.R." might be Delco Remy so I looked it up in the Riders index. I found nothing that approached this radio but right after Delco Remy is Detrola...bingo! Sure enough, the model 136 (on the nameplate of the museum radio) was listed in Riders VIII where I found that the layout and tube complement (41, 75, 6D6, 6D6, 6A7) matched Joe's description. The museum radio does not have an eye tube but Riders listed models with and without the eye tube. Apparently, the Croydon designation was a private brand for some store chain as was common in the 30s.



**Photo of the Croydon 136 RTM radio taken off the web. The eye tube model owned by Joe appears to be a model 136E.**

*Editors Note: Once Ray pulled the thread for Detrola, it was easy to advance from there. Detrola built radios under a variety of private brand names. One Antique Radio Forum commenter said that besides a few Croydon branded radios built by Detrola, he has also seen others which were obviously built by Sentinel. That leads him to believe that the store(s) which sold Croydon radios were in the Midwest since both Detrola and Sentinel were well known to have built a lot of private label sets for Midwest retailers. To further muddy the water, according to Alfred A Ghirardi, Croydon sets were also produced by the Warwick Co. of Chicago which made over 50 different trade name sets.*

## **SILENT KEY AUCTION SCHEDULED FOR NOVEMBER**

**By  
Richard Lee**



I have arranged a club buy-out of Silent Key Quentin Sellier's (WA2QCN) ham shack and the items will be auctioned at the November meeting. Quentin lived in North Bergen, NJ. Below are a few photos of some of the offered items that include a Hallicrafters HT-37, Lafayette signal generator, Globe VFO Deluxe, Alliance Azimuth Indicator, Heathkit Q Multiplier, various homebrew items, EICO Model 720 transmitter, WRL Globe King transmitter, WRL power supply and a three-tier Bud cabinet that houses the equipment. Not pictured is a Hammarlund HQ-101 receiver.



## OCTOBER REPAIR CLINIC

By  
Marv Beeferman

As a result of the Camp Evans Base of Terror Halloween event, the October Repair Clinic was moved to building 9010D. This area was upgraded to support Sandy workers and it turned out to be a very pleasant workplace. As usual, a six minute video of the event was captured by member Bob Bennett and it may be viewed at his "Radiowild" site on YouTube; just click on "New Jersey Antique Radio Club Repair Clinic 10/22/2016."

A few of the repair activities that took place include the following:

- Chuck Paci, Jules Bellisio and Charles Blanding worked on a JC Penney (Technics) MLS3233 receiver/amplifier with one bad channel. The problem is yet to be resolved and the amplifier remains a work in progress.
- Bill Zukowski repaired a Crosley model F-120BN radio/phono/clock combination from 1954 belonging to Rick Weingarten. Symptoms were hum and turntable slip. Bill replaced two filter capacitors and four paper capacitors and cleaned and lubricated the turntable. Bill also worked on an RP1120A record player owned by Kevin McDermet that

hummed due to a miswired cartridge - the tone arm was re-wired to correct the problem.

- Ray Chase re-started work on an HB superhet that he had attacked at three previous repair sessions. He was again interrupted by a Brandes 15 TRF AC set where the power supply had been previously worked on and repaired. Ray was able to get a signal through the set but it was weak. It appeared that the plate voltage was being dragged down by the use of 45's instead of 71A's. A bias change was considered but more research was needed. Since the client had to leave at noon, it was back to work on the HB superhet.

- Charles Blanding and Rich Phoenix repaired a Zenith F615B, 1963 table radio owned by Joe Divito. Intermittents were corrected, two resistors replaced, the tuning condenser was realigned and mounting hardware was replaced. Also, some wiring was rearranged after previous work was done on the power supply filter network.

- Bob Bennett and Bill Inderrieden worked on a Jackson Model 470 oscillator obtained from the Bob Haworth collection. All tubes were verified good and the unit was tested for functionality. It was also connected to a scope to test for accuracy. The unit was found to work well but could use a little more fine tuning. An EICO model 249 VTVM, also from the Haworth collection, was also worked on. A missing 12AU7 was installed and missing wiring was reconnected. The unit was operational but resistor replacement would improve accuracy.

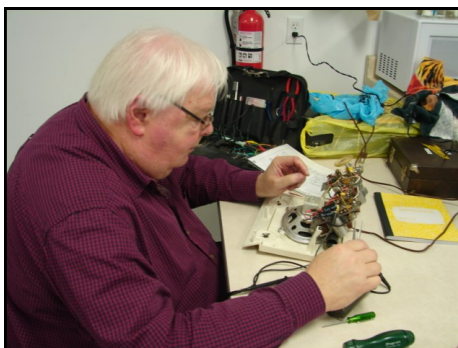
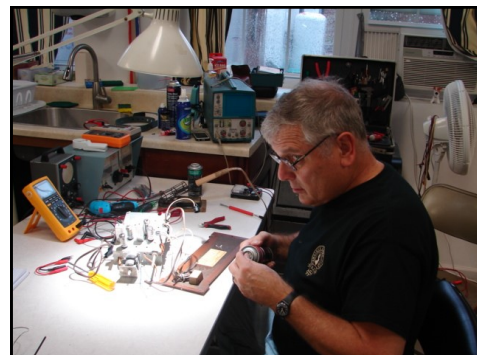
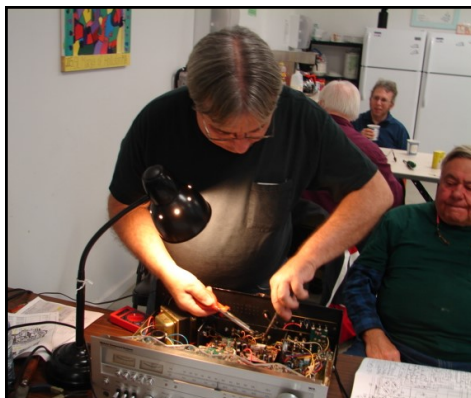
- Max Theis and Al Klase restrung the dial cord and recapped a Grundig 5017 radio. An EICO capacitor was checked to verify functionality. The inoperability of a Zenith AM/FM table radio was investigated after a recap by Max.

- Chris Pistilli and Phil Vourtsis restored a 1949 RCA 9-JY 45 RPM phono attachment.

- Your editor and Bob Bennett worked on a Philco 51 cathedral. No oscillation was traced to a potentially burned out coil.









## RESTORING AUTO VIBRATORS

By  
Marv Beeferman

During my research into my Radiart Jr one-tube radio, I came across a useful service note from the July 1943 issue of *RADIO Retailing TODAY*. The Radiart Corporation was a major manufacturer of auto radio vibrators and they responded to reports of new vibrators just taken from stock that would not start when installed in a radio receiver. They found that a frequent cause of this trouble was the formation of a slight coating of oxide on the vibrator points if it was left on the shelf over a period of time.

Since our hobby is dependent on NOS (New Old Stock) parts, it may be advantageous to understand how this problem can be corrected before deciding that the vibrator is useless, even it was never installed in a radio. Basically, the solution is to use an easy way to remove the oxide film without having to take apart the vibrator.

The first step is to locate the base diagram symbol which is usually located on the vibrator itself, the vibrator carton or the vibrator catalog under its part number.



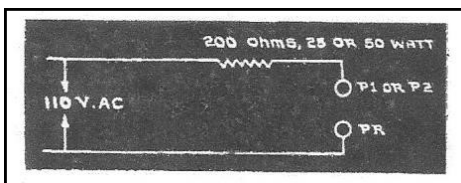
Typical Radiart vibrator.

After the base diagram symbol has been determined, check the base diagram for the location of contacts. Then connect 120 volts A.C. through a 200 ohm, 25 to 50 watt resistor between the vibrator reed ("PR") and either vibrator point ("P-1" or "P-2"). Only one of the latter will draw current and actuate the reed.

It will usually require from one to ten seconds to start the vibrator running and

to remove all the oxide film from the points. This will not, in any case, damage the vibrator and after this treatment the vibrator should start and function properly in its normal application.

The above method may be used to remove the oxide film and start any make of shunt-type vibrator. All manufacturers selling a general replacement line employed the shunt-type construction.



## ONE-HIT WONDERS

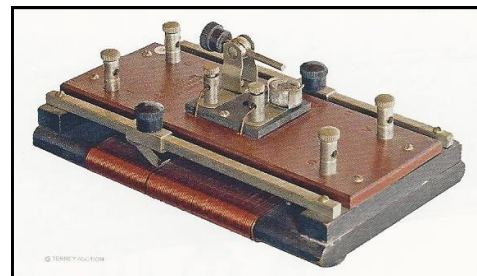
By  
Marv Beeferman

Some of you older NJARC rockers will immediately recognize the term "one hit wonder," that is a group or individual whose song has won a position on the national pop top 40 just once. Typical examples were "Kung Fu Fighting" by Carl Douglas, "Sugar Sugar" by the Archies or "Spirit in the Sky" by Norman Greenbaum. During the radio craze of the 1920s, it seemed like everyone was trying to get into the radio manufacturing business and even though many of the offerings were not exactly "hits," they were the only radio that the company produced.

One example I recently added to my collection is a 1923 crystal set manufactured by the Gundlach Manhattan Optical Corporation of Rochester, NY. The company is best known for its line of professional view cameras, most of which were sold under the Korona brand name.

The set, which was in production for less than a year and came in a "large" and "small" version, was the only radio Gundlach Manhattan ever manufactured or sold. As you can see from the photo, it is rather unique. It has a top-mounted crystal detector and double tuned adjustable sliders which give the radio a sharper selectivity. The word "Aerophone" is embossed in the detector stand, "G-W" is embossed on the slider knobs and "Gundlach Manhattan Opt. Co., Rochester N.Y." is stamped into the fine-grained mahogany base. The "Aerophone" detector was made by the Essex Specialty Co. Inc. of Berkeley Heights, NJ and retailed for \$1.25.

Do you have a "one hit wonder" in your collection? Send your information and a photo to [mbeeferman@verizon.net](mailto:mbeeferman@verizon.net) for inclusion in a future *Broadcaster*.



Top: Larger version of Gundlach crystal set in author's collection. Bottom: Smaller version of Gundlach set offered in the recent John Terrey auction in September.

## LAST MINUTE ADDITION TO MUSEUM MUSINGS

By  
Ray Chase

*Just before going to press, I received this last minute "Museum Musing" submittal by Ray Chase...Ed*

When we first opened the Radio Technology Museum, we would be lucky to get a couple of visitors. Steadily, our traffic has picked up but it is decidedly difficult to predict. The time of year, weather, InfoAge or local events, local Hamfests, etc. are all variables but we still occasionally have days when only one or two groups or individuals visit us. I think we hit one end of the scale on Wednesday, October 19th when 132 people came through including many children. It can be a challenge to whoever is on duty but so far we have been able to handle even this amount of turnout. Fortunately, on Wednesday, we also have backup people.

# NJARC Holiday Party

**Date:** Saturday, December 10th, 2016  
**Time:** 5:00 PM – Cocktail Hour  
 6:15 PM – Dinner  
**Place:** West Lake Golf & Country Club  
 1 Pine Lake Circle  
 Jackson, NJ 08527

**Members:** \$25 each  
**Non-Member Adults and Children over 12:** \$25 each  
**Children under 12:** \$5 each

**Cocktail Hour, Dinner Buffet, Mystery Grab Bag, Surprises**  
 A wonderful evening of fun, good food and fellowship with a radio theme.

\*\*\*\*\***RESERVATIONS REQUIRED**\*\*\*\*\*

If you plan to attend, please fill out the attached coupon, detach it and mail it with a check to:

**Marvin Beeferman**  
**2265 Emerald Park Drive**  
**Forked River, NJ 08731**  
**609-693-9430/mbeeferman@verizon.net**

by December 7<sup>th</sup>. **Everyone who plans to attend must send back a response form with the name(s) of attendees.** Reservations must be made via the form below; **please refrain from telephone or email reservations unless absolutely necessary!** Payment must accompany the form.

-----Cut here -----

Name(s): \_\_\_\_\_  
 \_\_\_\_\_

Telephone or email: \_\_\_\_\_

Number of <b>Members</b> :	_____	X \$25	= \$	_____
Number of <b>Children</b> under 12:	_____	X \$5	= \$	_____
Number of <b>Non-Members</b> :	_____	X \$25	= \$	_____

**TOTAL:** \$ \_\_\_\_\_

Make checks out to **NJARC**, enclose with this form and **mail before 12/05/16.**  
**(Note:** The cost of this party is supplemented by the NJARC.)



# New Jersey Antique Radio Club's

## Fall Swap Meet



**Parsippany PAL Building**

**33 Baldwin Road**

**Parsippany, NJ 07054**

**Just off Route 46,  
Adjacent to Smith Field**



**Saturday November 5th, 2016**



**Refreshments Available**

**(70) 8 Foot Tables**

**\$25.00 for members**

**\$30.00 for non-members**

**Reserve Additional Tables \$20.00**

**At the Door \$25.00**

**Open to the Public**

**8am to 12 noon**

**Vendor setup at 7:15 AM**

**\$5.00 ENTRANCE FEE**

**CLUB DONATION**

**For Directions**

**Visit our website: [www.njarc.org](http://www.njarc.org)**

**or Mapquest**

**33 Baldwin Rd Parsippany NJ 07054**

**Vendors Make Your Reservations Now!**

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